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**DOCKET NO. D-2010-018 CP-1**

**DELAWARE RIVER BASIN COMMISSION**

**Special Protection Waters**

**PPL Electric Utilities / Public Service Electric & Gas  
Susquehanna to Roseland 500 kV Transmission Line**

**Middle Smithfield Township in Monroe County; Lehman Township, Porter Township, Greene Township, Blooming Grove Township, and Palmyra Township in Pike County; Palmyra Township, Paupack Township, Lake Township, and South Canaan Township in Wayne County; and Jefferson Township in Lackawanna County, Pennsylvania; and**

**Hardwick Township in Warren County; Stillwater Township, Fredon Township, Newton Town, Andover Township, Byram Township, Hopatcong Borough, and Sparta Township in Sussex County; and Jefferson Township in Morris County, New Jersey**

**PROCEEDINGS**

This docket is issued in response to an Application submitted to the Delaware River Basin Commission (DRBC or Commission) by PPL Electric Utilities (PPL) on behalf of itself and Public Service Electric & Gas (PSE&G) on April 29, 2010 (Application), for review of a proposed project to upgrade an existing overhead electric transmission line that crosses the National Park Service's Delaware Water Gap National Recreation Area. The National Park Service issued its Final Environmental Impact Statement for the transmission line crossing of the Delaware Water Gap National Recreation Area, the Appalachian National Scenic Trail, and the Middle Delaware National Scenic and Recreational River on September 18, 2012.

The Application was reviewed for inclusion of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Monroe County Planning Commission, Pike County Planning Commission, Wayne County Planning Commission, Lackawanna County Planning Commission, Warren County Planning Department, Sussex County Planning Division, and Morris County Planning Department have been notified of pending action on this docket. A public hearing on this project was held by the DRBC on December 5, 2012.

## A. DESCRIPTION

1. **Purpose.** The purpose of this docket is to approve the proposed project to upgrade an existing overhead electric transmission line, referred to as the Susquehanna to Roseland 500-kiloVolt (kV) transmission line (S-R Line) project. The proposed upgrade consists of replacing approximately 146 miles of existing 230-kV overhead electric transmission line that extends from PPL's Susquehanna Substation near Berwick, Luzerne County, Pennsylvania to PSE&G's Roseland Substation in Roseland Borough, Essex County, New Jersey with a double circuit 500-kV overhead electric transmission line. Approximately 72 miles of the proposed upgraded 500-kV transmission line to be upgraded is within the Delaware River Basin, including a portion of the line (approximately 4.3 miles) that crosses the Middle Delaware River and the National Park Service's Delaware Water Gap National Recreation Area (DEWA). The DEWA is designated in the DRBC's Comprehensive Plan as a recreation project area. The project also involves widening 0.75 miles of existing right-of-way (ROW) within the DEWA along the existing 230-kV line to accommodate the operations of the proposed 500-kV line, and the clearing involved with the widening of ROW.

2. **Location.** The S-R Line project consists of the upgrade to an existing overhead electric transmission line that crosses and is located in the following municipalities in the Delaware River Basin: 1) in Pennsylvania: Middle Smithfield Township in Monroe County; Lehman Township, Porter Township, Greene Township, Blooming Grove Township, and Palmyra Township in Pike County; Palmyra Township, Paupack Township, Lake Township, and South Canaan Township in Wayne County; and Jefferson Township in Lackawanna County; and 2) in New Jersey: Hardwick Township in Warren County; Stillwater Township, Fredon Township, Newton Town, Andover Township, Byram Township, Hopatcong Borough, and Sparta Township in Sussex County; and Jefferson Township in Morris County. The S-R Line project crosses the following municipalities within the borders of the DEWA: Middle Smithfield Township, Monroe County, Pennsylvania; Lehman Township, Pike County, Pennsylvania; and Hardwick Township, Warren County, New Jersey. Within DEWA boundaries, the route of the existing and proposed line crosses Middle Delaware National Scenic and Recreational River (MDSR) and the Appalachian National Scenic Trail (APPA) approximately perpendicularly. The portion of the S-R Line project located in the Delaware River Basin crosses and is located within the drainage area to the section of the non-tidal Delaware River known as the Middle Delaware, which is classified by the Commission as Special Protection Waters (SPW).

3. **Area Served.** The S-R Line project will continue to service the Pennsylvania – New Jersey Maryland Interconnection (PJM Interconnection) between the Susquehanna Substation in Pennsylvania and the Roseland Substation in New Jersey. For the purpose of defining Area Served, the Application is incorporated herein by reference consistent with conditions contained in the DECISION section of this docket.

4. **Physical features.**

a. **Design criteria.** The S-R Line project consists of upgrading an existing 230-kV overhead electric transmission line to a 500-kV line. The existing line to be upgraded is

approximately 146 miles in length, and crosses the Middle Delaware River and 4.3 miles of the DEWA. Approximately 72 miles of the line to be upgraded is within the Delaware River Basin, including 24 miles in New Jersey and 48 miles in Pennsylvania. The project also includes additional clearing of new and existing ROW and construction of new access roads and maintenance of existing access roads in order to accommodate the larger structures and construction equipment associated with the proposed 500-kV line upgrade.

**b. Facilities.** The existing 230-kV transmission line towers are lattice structures, approximately 80 feet in height, with the transmission lines configured as single circuit horizontal lines. The existing towers are set on four concrete pads, each pad 4-foot in diameter, for a total pad area of 50 square feet per tower. The existing line's deeded ROW varies from 100 to 380 feet in width through the DEWA, and is currently cleared to a width between approximately 100 and 200 feet.

The S-R Line project includes replacing the existing towers and conductors with new towers and electric lines, monopole or lattice structures, ranging in height from 150 feet to 200 feet, with the transmission lines configured as single-circuit horizontal lines (lattice structures) and multi-circuit vertical lines (monopole structures) on the towers. The concrete bases for the proposed monopole towers are to be 14 feet in diameter, for a total maximum pad area of 154 square feet per tower. The proposed lattice towers are set on four concrete pads, with each pad 6-foot in diameter, for a total pad area per tower of 112 square feet per tower. The project also proposes to widen approximately 0.75 miles of existing ROW within the DEWA from 100 feet to 150 feet to accommodate these new facilities, and clearing of vegetation for an additional 50 feet of ROW width, as well as clearing for the construction of temporary and permanent access roads for the project.

Existing maintenance roads and less formal drive paths within the ROW will be used for a majority of the project construction. Outside the ROW, some limited new roads are required to accomplish the project; however the design objective was to locate off ROW access roads to be within existing roads, paths and trails to the maximum extent practical. All temporary access roads off the ROW will be restored to the prior existing condition following construction of the project.

The project does not propose any ground or surface water withdrawals or discharges to ground or surface water.

The project does not propose any permanent structures within the 100-year floodplain.

**c. Cost.** The overall cost of this project is estimated to be \$1,236,000,000.00

**d. Relationship to the Comprehensive Plan.** This project is added to the Comprehensive Plan by the approval of this docket (See DECISION Condition I.).

## **B. FINDINGS**

The docket holder submitted an Application to the Commission for approval of the proposed project to upgrade an existing overhead electric transmission line, referred to as the Susquehanna to Roseland 500-kiloVolt (kV) transmission line (S-R Line) project. The S-R Line project consists of upgrading approximately 146 miles of existing 230-kV overhead electric transmission with a 500-kV line. The existing line to be upgraded extends from PPL's Susquehanna Substation near Berwick, Luzerne County, Pennsylvania to PSE&G's Roseland Substation in Roseland Borough, Essex County, New Jersey, with approximately 72 miles of the line to be upgraded located within the Delaware River Basin. A portion of the line to be upgraded (approximately 4.3 miles) crosses the Middle Delaware River and the National Park Service's DEWA. The project also involves widening 0.75 miles of existing right-of-way (ROW) within the DEWA along the existing 230-kV line route to accommodate the operations of the proposed 500-kV line, as well as clearing involved with the widening of ROW.

The S-R Line project is considered a reviewable project by the DRBC under Section 3.8 of the DRBC Compact and Sections 2.3.5.A. and B. of the Commission's *Administrative Manual Rules of Practice and Procedure (RPP)*. Section 2.3.5.A.12 of the *RPP* provides that electric transmission or bulk power lines are reviewable:

"...when they pass in, on, under or across an existing or proposed reservoir or recreation project area as designated in the Comprehensive Plan; unless such lines would involve significant disturbance of ground cover affecting water resources."

The DEWA was designated by the United States Congress on September 1, 1965 as a National Recreation Area (Public Law 89-158) and is listed in Section III.A.2. of the *Comprehensive Plan* as a major (non-urban) recreation project area. Therefore the S-R Line project is reviewable by the DRBC.

### **Project History**

The regional transmission operator and project sponsor (the PJM Interconnection, or PJM) identified a 500-kV transmission line between the Susquehanna Substation in Pennsylvania and the Roseland Substation in New Jersey as the preferred and most effective solution for reliability violations forecasted as part of the Federal Energy Regulatory Commission (FERC)-approved Regional Transmission Expansion Plan process. Responding to this assessment, PPL / PSEG proposes to upgrade the existing 230-kV overhead electric transmission line to a 500-kV transmission line, referred to as the S-R Line project, to connect the two substations along the existing route that includes crossings of the DEWA, the MDSR, and the APPA. The purpose for the S-R Line project is to strengthen the reliability of the grid at the direction of PJM.

### **National Park Service's Environmental Impact Statement**

This Susquehanna to Roseland 500-kV Transmission Line Right-of-Way and Special Use Permit Final Environmental Impact Statement (EIS) was prepared by the National Park Service

(NPS) to identify the environmental impacts of the project on the DEWA, APPA, and MDSR in Pennsylvania and New Jersey. This EIS describes the S-R Line project, and details six (6) alternatives through NPS lands for the route of the transmission line, the resources that would be affected by the alternatives, and the environmental consequences of the alternatives. The EIS analyzes the impacts of the alternatives in detail for geologic resources (including topography and paleontology); floodplains; wetlands; vegetation; landscape connectivity, wildlife habitat, and wildlife; special-status species; rare and unique communities; archeological resources; historic structures; cultural landscapes; socioeconomics; infrastructure, access, and circulation; visitor use and experience; visual resources; soundscapes; wild and scenic rivers; park operations; and health and safety. Federal action by the NPS was needed because PPL / PSE&G submitted an application and plan to construct its line across areas under NPS jurisdiction. The no-action alternative was identified in the EIS as Alternative 1. The S-R Line project was identified as Alternative 2 in the EIS, also referred to as the applicant's (PPL/PSE&G's) proposed alternative.

The Final EIS, issued by the NPS on September 18, 2012, identified Alternative 2 (the proposed S-R Line) as the NPS-preferred alternative, with the incorporation of critical mitigation measures. The categories of required mitigation measures are: water and soil resources, floodplains, wetlands, landscape connectivity, wildlife habitat, and wildlife; special status species; cultural resources; archeology; historic structures; cultural landscapes; infrastructure, access and circulation; visual resources; soundscapes; visitor use; and health and safety.

### **Special Protection Waters**

In 1992, the DRBC adopted Special Protection Waters requirements, as part of the DRBC *Water Quality Regulations* (WQR), designed to protect existing high water quality in applicable areas of the Delaware River Basin. One hundred twenty miles of the Delaware River from Hancock, New York downstream to the Delaware Water Gap were classified by the DRBC as SPW. This stretch includes the sections of the river federally designated as "Wild and Scenic" in 1978 -- the Upper Delaware Scenic and Recreational River and the Delaware Water Gap National Recreation Area -- as well as an eight-mile reach between Milrift and Milford, Pennsylvania which is not federally designated. The SPW regulations apply to this 120-mile stretch of the river and its drainage area.

On July 16, 2008, the DRBC approved amendments to its *Water Quality Regulations* that provide increased protection for waters that the Commission classifies as Special Protection Waters. The portion of the Delaware River and its tributaries within the boundary of the Lower Delaware River Management Plan Area was approved for Special Protection Waters designation and clarity on definitions and terms were updated for the entire program.

Article 3.10.3A.2.e.1). and 2). of the *Water Quality Regulations, Administrative Manual - Part III*, states that projects subject to review under Section 3.8 of the Compact that are located in the drainage area of Special Protection Waters must submit for approval a Non-Point Source Pollution Control Plan (NPSPCP) that controls the new or increased non-point source loads generated within the portion of the project's service area which is also located within the

drainage area of Special Protection Waters. Portions of the project are located within the drainage area to Special Protection Waters. Since this project does entail construction, there are potentially new or increased non-point source loads associated with this approval, the non-point source pollution control plan requirement is applicable at this time.

For the New Jersey portion of the project, the docket holder has been issued Soil Conservation District Certification from the Sussex County Soil Conservation District and the Morris County Soil Conservation District, and is awaiting certification from the Warren County Soil Conservation District (see table in Required Permit Approvals section below).

For the Pennsylvania portion of the project, the docket holder has been issued Erosion and Sedimentation Control Plan approval from the Monroe County Conservation District, the Lackawanna County Conservation District, the Wayne County Conservation District, and the Pike County Conservation Districts. The docket holder has been issued Post-Construction Stormwater Management Plan approvals for Monroe County, Lackawanna County, and Wayne County, and is awaiting the approval for Pike County (see table in Required Permit Approvals section below).

### **Required Project Approvals**

The following tables lists the required approvals related to water resources in the Delaware River Basin for the S-R Line project, and their statuses:

<b>Agency</b>	<b>Approvals, Licenses or Permits</b>	<b>Status of Approval</b>
<b>Local Agencies</b>		
Monroe County Conservation District	Erosion & Sedimentation Control Plan approval	Approval received February 7, 2012
Pike County Conservation District	Erosion & Sedimentation Control Plan approval	Approval granted, awaiting receipt of approval
Wayne County Conservation District	Erosion & Sedimentation Control Plan approval	Approval received June 30, 2011
Lackawanna County Conservation District	Erosion & Sedimentation Control Plan approval	Approval received June 17, 2011
Warren SCD	Soil Conservation District(s) Certification & DEP RFA	Pending
Morris SCD	Soil Conservation District(s) Certification & DEP RFA	Issued June 23, 2010
Sussex SCD	Soil Conservation District(s) Certification & DEP RFA	Issued June 23, 2010
<b>Commonwealth of Pennsylvania and New Jersey Agencies</b>		
PA Public Utility Commission (PUC)	Application for permission to site & construct transmission line	Approval received January 2010.
NJ Board of Public Utilities (NJBPU)	Determination of Need	Approval received February 11, 2010

Agency	Approvals, Licenses or Permits	Status of Approval
PA Department of Environmental Protection (PADEP)	NPDES permitting and Post Construction Stormwater Management Plans (PCSM) (Chapter 102)	Monroe County approval received May 21, 2012. Wayne County approval received November 4, 2011. Lackawanna County approval received December 12, 2011. Pike County approval pending
PADEP	Waters/wetland encroachment permits (Chapter 105 – General Permits (GPs))	Wayne County approval received August 11, 2011. Lackawanna County approval received January 11, 2011. Monroe County approval pending Pike County approval pending
PADEP	Submerged Lands License Agreements (SLLA)	Pending
New Jersey Department of Environmental Protection (NJDEP), Division of Land Use Regulation	General Permit No. 12 for Geotechnical Work	Approval received April 2010
NJDEP, Division of Land Use Regulation	Letter of Interpretation (LOI)	Issued October 21, 2010
NJDEP, Division of Land Use Regulation	Individual Freshwater Wetlands Permit	Issued October 4, 2010
NJDEP, Division of Land Use Regulation	Individual Flood Hazard Area Permit from NJDEP	Issued October 4, 2010
Pennsylvania Department of Conservation & Natural Resources (PADCNR)	State threatened & endangered (T&E) species consultation and approvals	Pending
Pennsylvania Fish & Boat Commission (PAFBC)	T&E species reports and consultation as part of PADEP permits – fish, reptiles, amphibians and invertebrates	Project clearance received April 2010. Updated clearance received September 6, 2012.
PA Game Commission (PGC)	T&E species report and consultation as part of PADEP permits – mammals and birds	Project clearance received December 2011. Updated clearance pending
New Jersey Endangered and Nongame Species Program's (NJENSP)	T&E species coordination	Environmental T&E species conditions incorporated into October 4, 2012 NJDEP permit
<b>Federal and Other Agencies</b>		
U.S. Army Corps of Engineers (USACE) – Philadelphia District	Regulated waters/wetlands encroachment permitting (Section 404/401 permits) Pennsylvania State Programmatic General Permit 4 (SPGP-4)	Wayne County approval received April 18, 2012. Lackawanna County approval received April 18, 2012. Pike County approval pending Monroe County not applicable
USACE – Philadelphia District	Delaware River crossing permit (Nationwide Permit 12)	Pending
U.S. Fish & Wildlife Service (USFWS) - Pennsylvania	Federal T&E reporting and compliance with Section 7 of Endangered Species Act as part of federal	Project clearance received January 2010. Updated Project clearance received April 17, 2012.

Agency	Approvals, Licenses or Permits	Status of Approval
	permits; bog turtle screening (Monroe County only)	
USFWS –New Jersey	T&E species coordination	Environmental T&E species conditions incorporated into October 4, 2012 NJDEP permit
U.S. Department of the Interior, National Park Service (NPS)	Application and permit approvals (special use and construction permits) for portion of Project within the NPS Delaware Water Gap National Recreation Area (DEWA)	Final EIS issued 9/18/2012. Record of Decision issued October 1, 2012.

Condition I.a. in the DECISION section of this docket states that the project approval is contingent upon the docket holder obtaining these approvals and this docket approval is subject to the conditions of these approvals.

### **Wetlands**

The majority of the wetlands impacts associated with the project involve aerial crossings of existing wetlands in New Jersey and Pennsylvania. Since the proposed overhead transmission line will replace the existing overhead transmission line, there is no additional wetlands being crossed as a result of the project and therefore there is little additional wetlands impact from the proposed project with regard to the aerial crossings. Please find below the acreage for temporary and permanent wetlands disturbance. Note that the areas of wetlands to be temporarily disturbed are either: 1) located within the existing transmission line ROW and therefore are currently in a disturbed condition or have been disturbed previously; or 2) located within an existing access road, which is currently in a disturbed condition.

In New Jersey, approximately 0.009 acres of existing wetland areas will be filled, and therefore permanently disturbed, and 6.71 acres of existing wetlands will be temporarily disturbed. NJDEP issued an individual freshwater wetlands permit for the project on October 4, 2012.

In Pennsylvania, approximately 0.01 acres of existing wetland areas will be filled, and therefore permanently disturbed, and 0.124 acres of existing wetlands will be temporarily disturbed. The docket holder was issued a General Permit (GP) from Wayne County on August 11, 2011 and a GP from Lackawanna County on January 11, 2011. GP approvals are pending for Monroe County and Pike County.

Condition I.a. in the DECISION section of this docket states that the project approval is contingent upon the docket holder obtaining approvals from PADEP, NJDEP, NPS, and USACE and other local agencies (including Wayne, Lackawanna, Pike, and Monroe Counties in Pennsylvania), including the freshwater wetlands permit and the GPs, and this docket approval is subject to the conditions of these approvals.



Mitigation measures designed to reduce the impacts on wetlands required by the NPS for the work to be performed in the DEWA, as identified in their Final EIS, are listed in the section above, and include, but are not limited to: designing access roads to avoid wetlands; using timber mats in areas outside the access roads during construction to minimize soil compaction; locating staging, tower, and pulling and splicing locations to avoid wetlands and rare and unique communities inside and outside the study area; spanning wetlands with towers; limiting construction to winter months when soil and water are more likely to be frozen and vegetation is dormant; using mats and wide-track vehicles when crossing wetlands because some wetlands never freeze; developing compensatory mitigation where clearing in a wetland would occur, as clearing is considered a loss; and submitting wetland delineations to the NPS for approval.

### **Construction Plan Approval**

The docket holder submitted constructability plans for the project, dated October 30, 2012. The docket holder is required to submit final plan and specifications for the project construction located within the DEWA. This docket includes a condition providing that the Executive Director must approve the plans and specifications for the project facilities located within the DEWA prior to initiation of construction within the DEWA (See Condition II.f. in the DECISION section).

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

## **C. DECISION**

I. Effective on the approval date for Docket No. D-2010-018 CP-1 below, the project and the appurtenant facilities described in Section A “Physical Features” of this docket shall be added to the Comprehensive Plan.

II. The project and appurtenant facilities as described in Section A “Physical Features” of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

a. Docket approval is subject to all conditions, requirements, and limitations imposed by the PADEP, NJDEP, NPS, and USACE and other local agencies (counties, municipalities, etc.) and such conditions, requirements, and limitations are incorporated herein, unless they are less stringent than the Commission’s. Commission approval of the project is contingent on the approval of these permits.

b. The project facilities and operational records shall be available at all times for inspection by the DRBC.

c. The project facilities shall be operated at all times to comply with the requirements of the *Water Quality Regulations* of the DRBC.

d. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.

e. Sound practices of excavation, backfill and reseedling shall be followed to minimize erosion and deposition of sediment in streams.

f. The docket holder shall submit final constructions plans and specifications for the project facilities located within the DEWA to be approved by the Executive Director, prior to initiation of construction within the DEWA, Subject to the receipt of all necessary permits and approvals, and assuming no delays beyond the docket holder's control, the construction of the project facilities located within the DEWA shall be completed no later than December 5, 2015.

g. Within 10 days of the date that construction of the project has started, the docket holder shall notify the DRBC of the starting date and scheduled completion date.

h. Within 30 days of completion of construction of the approved project, the docket holder is to submit to the attention of the Project Review Section of DRBC a Construction Completion Statement ("Statement") signed by the docket holder's professional engineer for the project. The Statement must (1) either confirm that construction has been completed in a manner consistent with any and all DRBC-approved plans or explain how the as-built project deviates from such plans; (2) report the project's final construction cost as such cost is defined by the project review fee schedule in effect at the time the application was made; and (3) indicate the date on which the project was (or is to be) placed in operation. In the event that the final project cost exceeds the estimated cost used by the docket holder to calculate the DRBC project review fee, the statement must also include (4) the amount of any outstanding balance owed for DRBC review. The outstanding balance will equal the difference between the fee paid to the Commission and the fee calculated on the basis of the project's final cost, using the formula and definition of "project cost" set forth in the DRBC's project review fee schedule in effect at the time application was made.

i. This docket approval shall expire three years from date below unless prior thereto the docket holder has commenced operation of the subject project or has expended substantial funds (in relation to the cost of the project) in reliance upon this docket approval.

j. Nothing in this docket approval shall be construed as limiting the authority of DRBC to adopt and apply charges or other fees to this project.

k. The issuance of this docket approval shall not create any private or proprietary rights in the water of the Basin, and the Commission reserves the right to amend, alter or rescind any actions taken hereunder in order to insure proper control, use and management of the water resources of the Basin.

l. The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.

m. Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the Rules of Practice and Procedure. In accordance with Section 15.1(p) of the Delaware River Basin Compact, cases and controversies arising under the Compact are reviewable in the United States district courts.

**BY THE COMMISSION**

**DATE APPROVED:**